

45. (New) A method of communicating between a pane program and a shell program in a telephony device, wherein the shell program is operable to display a user interface for the telephony device, the method comprising:

providing a pane identifier in a function call, wherein the identifier is associated with a new pane to be added to the user interface; and

in response to the providing, creating an instance of the new pane in the user interface;

wherein the function call calls a function in a programming interface exposed by the shell program, and wherein the programming interface facilitates customization of the user interface.--

REMARKS

Reconsideration of the application is respectfully requested in view of the foregoing amendments and following remarks. Claims 1, 3-6, 8, and 12-45 are pending in the application. Applicants cancel claims 2, 7, and 9-11 without prejudice to renewal. No claims have been allowed. Claims 1, 8, 13, 19, 21, 32, 41, and 45 are independent.

Cited Art

U.S. Patent No. 6,192,118 to Bayless et al. ("Bayless") is entitled "Computer Telephone System and Method Having a Graphical User Interface."

Information Disclosure Statement

Applicants filed an Information Disclosure Statement ("IDS") on April 24, 2001, citing 6 patent references and 12 other references. Applicants records include ("Exhibit A") a postcard indicating that the IDS was received by the Office on April 30, 2001. Accordingly, Applicants respectfully request the Examiner return the initialed Form 1449 to indicate the references were properly considered. A copy of the Form 1449 is enclosed. Another copy of the references can be obtained by contacting the undersigned attorney.

Separately, Applicants submit herewith an Information Disclosure Statement with one (1) additional reference for consideration by the Examiner.

Patentability of Claims 1-8 and 10-21 over Bayless under § 102(e)

The Action rejects claims 1-8 and 10-21 under 35 U.S.C. § 102(e) as being anticipated by Bayless. Applicants respectfully submit the claims in their present form are allowable over the cited art. For a 102(e) rejection to be proper, the cited art must show each and every element as set forth in a claim. (See MPEP § 2131.01.) However, the cited art does not so show.

Claim 13

Bayless fails to teach or suggest at least one element of claim 13. As amended, claim 13 recites in part:

creating a custom user interface program module, wherein the custom user interface program module uses the programming interface operable to provide functionality for customizing the user interface and displays a custom user interface element in the user interface.

For example, the application states:

The software architecture defines programming interfaces that allow the system implementer to provide custom panes that can be incorporated into the software platform of the telephony device. These programming interfaces allow the implementer to supply a custom pane that displays itself within the start screen and that interacts with other software components in the platform.

[See Application at p. 6, line 28 - p. 7, line 3.]

The description of APIs in Bayless does not teach or suggest “the custom user interface program module uses the programming interface operable to provide functionality for customizing the user interface.” In its rejection of claim 13, the Action relies on various passages in Bayless; however, Bayless simply describes using APIs to access implementation-dependent hardware and software. For example, Bayless states:

Moreover, the system may be implementation-independent as the architecture employs API's to access implementation-dependent hardware and software. The use of APIs and especially the mapping program of the present invention isolates the various components of the system architecture from the machine dependent variables of systems providing services to those components.

[See Bayless at col. 11, lines 46-53.]

Bayless does describe a user interface for a computer telephone system; however, Bayless does not teach or suggest “the custom user interface program module uses the programming interface operable to provide functionality for customizing the user interface,” as recited in claim 13. Bayless describes a “GUI object builder” that “may have a design mode and a run time mode which allows a designer to visually build an application by specifying the

windows, window contents, and the behavior of all components of the system.” [See Bayless at col. 12, lines 5-9.] But while Bayless describes a way to create “GUI objects” for a user interface and describes APIs in the context of accessing implementation-dependent hardware and software, Bayless does not teach or suggest “the custom user interface program module *uses the programming interface operable to provide functionality for customizing the user interface.*”

The Office action also asserts, “Note that the programming shell structure is mentioned as well as being implicit.” As understood by Applicants, Bayless does not mention a “shell” program or structure. Moreover, even if a “shell” program were implicit in Bayless, the implicit existence of a shell program in a computer telephone system would not lead one of ordinary skill in the art to the claimed arrangement.

Since Bayless fails to describe at least one element recited in claim 13, the claim is not subject to a 102(e) rejection over the cited art, and Applicants respectfully request the objection be withdrawn. For at least these reasons, claim 13 and its dependent claims, 14-18 and 28-31, are therefore allowable at this time.

Claim 1

Bayless fails to teach or suggest at least one element of claim 1. As amended, claim 1 recites in part:

a customizable area including including at least one user interface element enabling the user to select a service of the telephony device, including any one of the following services: a compose e-mail service, and an online directory service.

[See, e.g., Application at page 9, lines 20-27 and Fig. 2.]

Bayless does not teach or suggest a customizable area including including at least one user interface element enabling the user to select a compose e-mail service or an online directory service. In its rejection of claim 1, the Action relies on various passages and figures in Bayless; however, the passages and figures do not teach or suggest the claimed arrangement.

For example, while Bayless describes “events” in a computer telephone system that may correspond to systems such as e-mail systems [see, e.g., Bayless at col. 12, lines 58-61], Bayless does not teach or suggest a user interface element for enabling a user to activate any kind of e-mail system, nor does Bayless suggest that such an arrangement would be possible or even desirable. Moreover, while Bayless describes certain uses of directories [see, e.g., Bayless at col. 17, line 20 - col. 19, line 11; Figs. 14-15], Bayless does not teach or suggest a user interface element enabling a user to select an *online* directory service.

Because Bayless fails to describe at least one element recited in claim 1, the claim is not subject to a 102(e) rejection over Bayless, and Applicants respectfully request the objection be withdrawn. For at least these reasons, claim 1 and its dependent claims, 3-6, 26 and 27, are allowable over the cited art.

Claim 8

Bayless fails to teach or suggest at least one element of claim 8. As amended, claim 8 recites in part:

a branding area for displaying a brand graphic.

[See, e.g., Application at page 9, lines 12-21 and Fig. 2.]

Bayless does not teach or suggest a branding area for displaying a brand graphic. In its rejection of claim 1, the Action relies on various passages and figures in Bayless; however, the passages and figures do not teach or suggest the claimed arrangement.

For example, the figures in Bayless cited by the Examiner as showing brand graphics show windows for editing a directory entry and importing field mappings, but do not show brand graphics. [See Bayless at Figs. 30 and 31.] While Bayless mentions that PBXs may be queried to determine brand and model number [see, e.g., Bayless at col. 41, lines 24-25], Bayless does not teach or suggest showing any kind of brand graphic in a user interface.

Because Bayless fails to describe at least one element recited in claim 8, the claim is not subject to a 102(e) rejection, and Applicants respectfully request the objection be withdrawn. Claim 8 and its dependent claim, 12, are allowable over the cited art.

Claim 19

Bayless fails to teach or suggest at least one element of claim 19. As amended, claim 19 recites in part:

wherein the shell program exposes a programming interface operable to provide functionality for customizing the user interface

For example, the application states:

The software architecture defines programming interfaces that allow the system implementer to provide custom panes that can be incorporated into the software platform of the telephony device. These programming interfaces allow the implementer to supply a custom pane that displays itself within the start screen and that interacts with other software components in the platform.

[See Application at p. 6, line 28 - p. 7, line 3.]

The Office action asserts, “Note that the programming shell structure is mentioned as well as being implicit.” As understood by Applicants, Bayless does not mention a “shell” program or structure. Moreover, even if a “shell” program were implicit in Bayless, the implicit existence of a shell program in a computer telephone system would not lead one of ordinary skill in the art to the claimed arrangement.

The description of APIs in Bayless does not teach or suggest “the shell program exposes a programming interface operable to provide functionality for customizing the user interface.”

In its rejection of claim 19, the Action relies on various passages in Bayless; however, Bayless only describes using APIs to access implementation-dependent hardware and software. For example, Bayless states:

Moreover, the system may be implementation-independent as the architecture employs API’s to access implementation-dependent hardware and software. The use of APIs and especially the mapping program of the present invention isolates the various components of the system architecture from the machine dependent variables of systems providing services to those components.

[See Bayless at col. 11, lines 46-53.]

Bayless does describe a user interface for a computer telephone system; however, Bayless does not teach or suggest “wherein the shell program exposes a programming interface operable to provide functionality for customizing the user interface,” as recited in amended claim 19. Bayless describes a “GUI object builder” that “may have a design mode and a run time mode which allows a designer to visually build an application by specifying the windows, window contents, and the behavior of all components of the system.” [See Bayless at col. 12, lines 5-9.] But while Bayless describes a way to create “GUI objects” for a user interface and describes APIs in the context of accessing implementation-dependent hardware and software, Bayless does not teach or suggest “the custom user interface program module *uses the programming interface operable to provide functionality for customizing the user interface.*”

Because Bayless fails to describe at least one element recited in claim 13, the claim is not subject to a 102(e) rejection over the reference, and Applicants respectfully request the objection be withdrawn. For at least these reasons, claim 19 and its dependent claim, 20, are allowable over the cited art.

Claim 21

Bayless fails to teach or suggest at least one element of claim 21. As amended, claim 21 recites:

a message area for displaying a visual indicator of fax, e-mail, or answering machine messages.

[See, e.g., Application at page 10, lines 7-12 and Fig. 3.]

Bayless does not teach or suggest a message area for displaying a visual indicator of fax, e-mail, or answering machine messages. The Action relies on various passages and figures in Bayless; however, the passages and figures do not teach or suggest the claimed arrangement.

For example, the Examiner cites Figure 34 of Bayless. Figure 34 shows a "Make & Answer Calls" window, which displays information about various telephone calls. However, no visual indicators of fax, e-mail, or answering machine messages are shown in Figure 34. While Figures 99-107 in Bayless show examples of a user interface that may be used in a voice mail system, Bayless does not teach or suggest "a visual indicator of fax, e-mail, or answering machine messages."

Because Bayless fails to describe at least one element recited in claim 21, the claim is not subject to a 102(e) rejection over the reference, and Applicants respectfully request the objection be withdrawn. For at least the above reasons, claim 21 and its dependent claims, 22-25, are allowable over the cited art.

New Claims

Applicants have amended the application by adding claims 22-45, which have been composed anew in light of the most recent Office action. The new claims recite patentably-distinct subject matter and find support in the specification. For instance, support for claim 22 can be found, for example, at page 9, lines 20-27. Support for claims 32, 34 and 38 can be found, for example, at pages 22-28.

Request For Interview

The Examiner is formally requested to contact the undersigned attorney prior to issuance of the next Office Action in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application may expedite prosecution. Applicants submit the foregoing formal Amendment so that the Examiner may fully evaluate Applicants' position, thereby enabling the interview to be more focused.


This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

Conclusion

The claims in their present form should now be allowable. Such action is respectfully requested.

Respectfully submitted,

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Marked-up Version of Amended Specification and Claims
Pursuant to 37 C.F.R. §§ 1.121(b)-(c)

The paragraph beginning at page 33, line 26 has been amended as follows:

While the invention is described with reference to specific implementations, the scope of the invention is not limited to these implementations. The start screen has a number of features that are unique, whether considered alone or in combination with other features. Therefore, the specific combination of features shown above should not be construed as being a necessary element of the invention.

The claims have been amended as follows:

1. (Amended) A visual user interface for a telephony device with a screen display, the visual user interface comprising:
[a display screen including any two or more of the following display elements:]
an application program selection area, including [a display of]user interface controls for selecting application programs;
a call slip area, including a call slip user interface for displaying telephone line state information; and
a customizable area including at least one user interface element enabling the user to select a service of the telephony device, including any one of the following services: a compose e-mail service, and an online directory service. [; and
a user input device for enabling a user to enter input by selecting one or more of the above display elements.]

2. (Cancelled) The visual user interface of claim 1 wherein the customizable area includes one or more of the following display elements:

- a branding pane for displaying a brand graphic;
- a data/time pane for displaying data or time;
- a message pane for displaying answering machine, e-mail or fax messages for one or more users; and
- a task pane for enabling the user to select a service of the telephony device, including any one of the following services: a speed dial service, a compose e-mail service, a note-taking service, and an online directory service.

3. (Unchanged) The visual user interface of claim 1 wherein the customizable area includes one or more user interface panes that each display user interface elements of a corresponding application program.

4. (Unchanged) The visual user interface of claim 1 including a message usage interface pane that displays user interface elements visually depicting a type of message received by a user in the telephony device.

5. (Unchanged) The visual user interface of claim 4 wherein the user interface elements visually depicting a type of message comprise graphical icons indicating that the user has received a message.

6. (Amended) The visual user interface of claim [4] 5 wherein the graphical icons are user interface controls that respond to user [selection] input from [the] an input device by initiating a message viewer to view the corresponding message.

7. (Cancelled) The visual user interface including each of the display elements of claim 1.

8. (Amended) A visual user interface for a telephony device with a screen display comprising the following user interface elements:

[a display screen including any two of the following display elements:]

an application program selection area, including [a display of]user interface controls for selecting application programs;

a call slip area, including a call slip user interface for displaying telephone line state information; and

a branding [pane] area for displaying a brand graphic.;

a date/time pane for displaying date or time;

a message pane for displaying answering machine, e-mail or fax messages for one or more users; and

a task pane for enabling the user to select a service of the telephony device, including any one of the following services: a speed dial service, a compose an e-mail message service, a note-taking service, and an online directory service; and

a user input device for enabling a user to enter input by selecting one or more of the above display elements.]

9. (Cancelled) The interface of claim 8 wherein the input device is a touch screen.

10. (Cancelled) The interface of claim 8 wherein the input device is a cursor control device.

11. (Cancelled) The interface of claim 8 wherein the input device is a keypad, keyboard or hardware button.

12. (Unchanged) The interface of claim 8 wherein one or more of the display elements is customizable.

13. (Amended) A method for developing software to run on a [screen phone] telephony device, the method comprising:

receiving a [shell program] software platform for displaying a user interface on a display screen of the [screen phone] telephony device, wherein the software platform exposes a programming interface operable to provide functionality for customizing the user interface;

receiving default [pane programs] user interface program modules that each display default [panes] user interface elements in the user interface; and

[selecting one or more of the default pane programs to include in the user interface of the screen phone;]

creating a custom [pane program that] user interface program module, wherein the custom user interface program module uses the programming interface operable to provide functionality for customizing the user interface and displays a custom [pane] user interface element in the user interface.;

creating a custom application program that uses the custom pane as a user interface and communicates state changes in the custom application program to the custom pane program, the custom pane program being programmed to update information displayed in the custom pane in response to the state changes.]

14. (Amended) The method of claim 13 further including:

enumerating the custom [pane program] program module in a data structure of an operating system to enable the [shell program] software platform to identify the custom [pane] user interface element and add the custom [pane] user interface element to the [display screen of the screen phone] user interface.

15. (Amended) The method of claim 13 further including:

receiving a definition of a programming interface for a pane, where the programming interface includes a function for creating a custom pane in the display screen of the [screen phone] telephony device; and

developing code for the custom pane that implements the programming interface according to the definition, the code implementing the function for creating [a] the custom pane.

16. (Amended) The method of claim 13 including:
receiving a set of application programs associated with the default [panes] user interface elements; and
for a selected default [pane] user interface element, selecting an associated application program from the set to be loaded onto and executed in the [screen phone] telephony device;
wherein the associated application program uses the selected default [pane] user interface element as a user interface.

17. (Amended) The method of claim 16 wherein the default [pane programs] program modules include a message [pane program] program module for displaying a user interface for a message center application program in a message pane;
wherein the message center application program communicates state changes to the message [pane program] program module, and wherein the message [pane program] program module updates the message pane to reflect the state changes.

18. (Amended) The method of claim 17 wherein the state changes include arrival of a fax, email, or answering message[in the screen phone], and the message [pane] program module updates the message pane by displaying an indicator of the arrival of the message.

19. (Amended) A computer readable medium having programming modules that control the display of a user interface of a screen phone, the programming modules including:
a shell program for controlling display of a user interface on a display screen of the screen phone, wherein the shell program exposes a programming interface operable to provide functionality for customizing the user interface;

default pane programs that each control display of default panes in the user interface, at least one of the default pane programs providing a user interface for a parent application program;

wherein the parent application program communicates state changes to the corresponding default pane program, and the corresponding default pane program updates the default pane to reflect the state changes.

20. (Unchanged) The computer readable medium of claim 19 wherein:
the parent application program is a message program for managing messages received by the screen phone, including fax, e-mail or answering machine messages;
the corresponding default pane program is a message pane program, and the message pane program updates the message pane by displaying an indicator of the arrival of the message.

21. (Amended) A visual user interface for a telephony device with a screen display, the visual user interface comprising:
[a display screen including any two of the following display elements:]
an application program selection area, including [a display of] user interface controls for selecting application programs;
a call [slip] area, including a [call slip] user interface for displaying telephone line state information; and
a message [pane] area for displaying a visual indicator of fax, e-mail, or answering machine messages.; and
a user input device for enabling a user to enter input by selecting one or more of the above display elements.]

The following new claims have been added:

--22. (New) The visual user interface of claim 21 further comprises a user interface element for enabling a user to activate a compose e-mail service.

23. (New) The visual user interface of claim 21 further comprising a branding area for displaying a brand graphic.

24. (New) The visual user interface of claim 21 wherein one or more of the areas are customizable.

25. (New) The visual user interface of claim 21 wherein the visual user interface is operable to be customized by adding additional user interface elements.

26. (New) The visual user interface of claim 1 wherein the customizable area further includes a message display element for displaying answering machine, e-mail or fax messages for one or more users.

27. (New) The visual user interface of claim 1 wherein the customizable area further includes a branding display element for displaying a brand graphic.

28. (New) The method of claim 13 further comprising creating a custom application program that uses the custom display element as a user interface and communicates state changes in the custom application program to the custom program module, wherein the custom program module is operable to update information displayed in the custom display element in response to the state changes.

29. (New) The method of claim 13 wherein the programming interface exposed by the software platform comprises the following function as a platform service for customizing the user interface:

a function for adding a pane to the user interface.

30. (New) The method of claim 29 wherein the programming interface exposed by the software platform further comprises the following function as a platform service for customizing the user interface:

registering the pane to receive messages related to a status change for the pane.

31. (New) The method of claim 30 wherein the software platform offers the following platform service:

as a result of registering the pane, posting a message indicating a status change to the pane when an event related to a status change is detected.

32. (New) A computer-implemented method for providing run-time customization of a user interface of a telephony device, the method comprising:

at run-time of the user interface, accepting an indication that a new user interface element is to be added to the user interface of the telephony device; and

responsive to the accepting, adding the new user interface element to the user interface of the telephony device;

wherein the accepting facilitates customization of the user interface of the telephony device at run-time of the user interface.

33. (New) A computer-readable medium having computer-executable instructions for performing the method of claim 32.

34. (New) The method of claim 32 wherein the accepting is accomplished via a programming interface.

35. (New) The method of claim 34 further comprising:
via the programming interface, accepting an indication that the new user interface element is to be registered for receiving messages related to the new user interface element.

36. (New) The method of claim 35 wherein the programming interface further accepts a reference to the new user interface element.

37. (New) The method of claim 32 wherein the new user interface element comprises a new pane.

38. (New) The method of claim 32 wherein the new user interface element enables a user to select a service provided by the telephony device.

39. (New) The method of claim 32 wherein the new user interface element enables a user to activate a compose e-mail service.

40. (New) The method of claim 32 wherein the new user interface element enables a user to activate an online directory service.

41. (New) A telephony device comprising:
a screen display;
a computer-readable medium; and
a user input device;
wherein the computer-readable medium has stored thereon a software platform comprising:
computer executable instructions for displaying a graphical user interface for the telephony device on the screen display; and
an application programming interface operable to enable customization of the user interface during run-time of the user interface.

42. (New) The telephony device of claim 41 wherein the graphical user interface comprises a message area for displaying a visual indicator of fax, e-mail, or answering machine messages.

43. (New) The telephony device of claim 41 wherein the graphical user interface comprises a user interface element for enabling a user to activate a compose e-mail service or an online directory service.

44. (New) The telephony device of claim 41 wherein the graphical user interface comprises a branding area for displaying a brand graphic.

45. (New) A method of communicating between a pane program and a shell program in a telephony device, wherein the shell program is operable to display a user interface for the telephony device, the method comprising:

providing a pane identifier in a function call, wherein the identifier is associated with a new pane to be added to the user interface; and

in response to the providing, creating an instance of the new pane in the user interface;

wherein the function call calls a function in a programming interface exposed by the shell program, and wherein the programming interface facilitates customization of the user interface.--

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<input type="checkbox"/> Amendment	<input type="checkbox"/> After Final Rejection	<input type="checkbox"/> Months Extension of Time
<input type="checkbox"/> Notice to File Msg. Parts - Data	<input type="checkbox"/> Letter to Official Draftsman	
<input type="checkbox"/> Comb. Decl./POA	<input type="checkbox"/> Notice of Allowability	
<input type="checkbox"/> Verif'd Stmt. Claiming Srp. Entity Status	<input type="checkbox"/> Sht(s) Drawings <input type="checkbox"/> Formal	
<input type="checkbox"/> In connection with Issuance of a Patent:	<input type="checkbox"/> DS <input checked="" type="checkbox"/> Form PTO-1449/Ref.	
<input type="checkbox"/> Supp. Declaration <input type="checkbox"/> Form 85b	<input type="checkbox"/> Petition	
<input type="checkbox"/> Issue & Advance Order fees	<input checked="" type="checkbox"/> Transmittal Ltr. <input type="checkbox"/> dupl. <input type="checkbox"/> tripl.	
<input type="checkbox"/> Surcharge - Late Filing Fee, Oath, or Declaration	<input type="checkbox"/> Small Entity	<input type="checkbox"/> All Others
<input type="checkbox"/> Assignment to: _____	<input type="checkbox"/> PTO 1595	
<input type="checkbox"/> Check No. _____ for \$ _____	<input checked="" type="checkbox"/> Deposit Acct. 02-4550 Authority	

EXHIBIT A